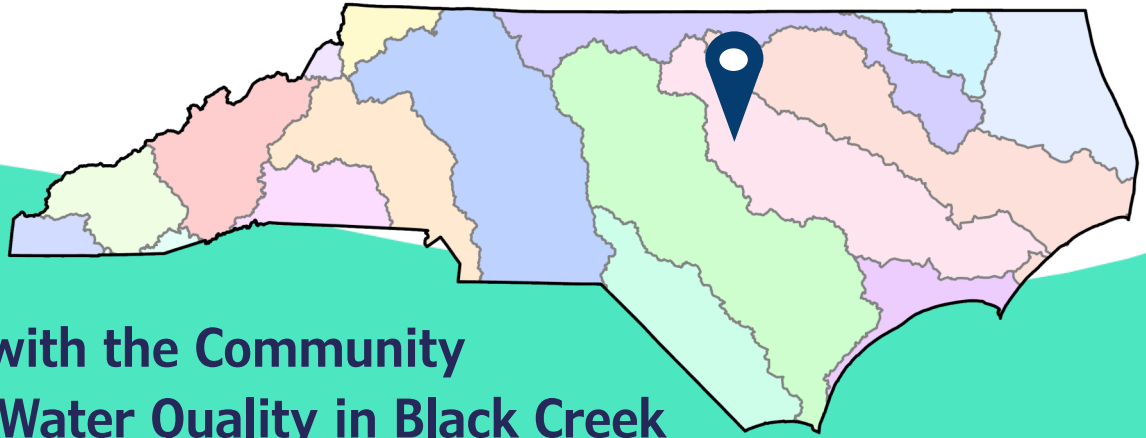




NC
319
Grant



Partnering with the Community to Improve Water Quality in Black Creek

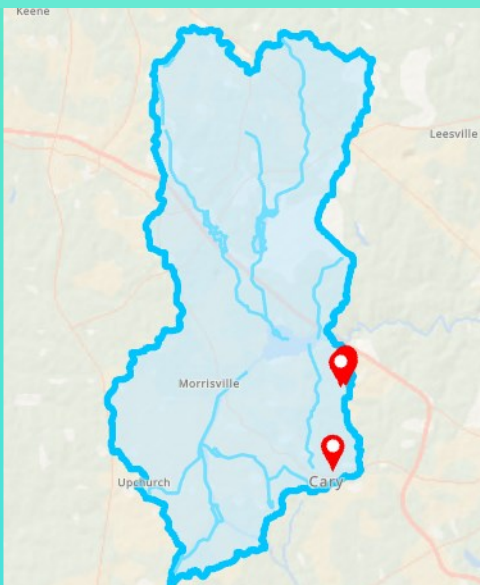
Overview

River Basin: Neuse

County: Wake

319 Funding: \$143,870

Total Cost: \$242,204



Project sites along Black Creek
in the Upper Crabtree watershed



Student and parent help plant the
Kingswood bioretention area

Project Background

The Black Creek runs through the northern section of the Town of Cary and flows into Lake Crabtree, providing many recreational opportunities to residents. However, due to the impacts of urban development, it has been on North Carolina's 303(d) impaired waters list for aquatic life impairments since 1998. The **Black Creek Watershed Association (BCWA)**, a motivated group of residents and local government organizations, developed a watershed restoration and action plan to restore water quality in the creek in 2009. Assessments from the BCWA found high fecal coliform bacteria levels and nutrient loads from excessive stormwater runoff were primary causes of the impairment. In 2015, the **Water Resources Research Institute (WRRI)** was awarded an EPA Clean Water Act Section 319 Grant to continue 10 years' worth of efforts to restore the Black Creek by partnering and engaging with the community.

Project Approach

Community engagement was a key component of this project in order to build local awareness and involvement. The community organizations involved included Kingswood Elementary School and Beechtree Homeowners Association (HOA), in addition to the Town of Cary. The success of implementing Green Infrastructure at Kingswood Elementary School brought attention to the benefits of stormwater management within environmental education. The 4 residential rain gardens integrated within the Beechtree neighborhood fostered new stewardship in a local community. Finally, the project provided recommendations for the Black Creek Greenway renovations to further improve stream health in the Black Creek and other creeks in town.



BMPs Implemented

Kingswood Elementary	Beechtree neighborhood
2,100 gallon cistern	135 ft of streambank stabilization
796 ft ² bioretention area	4 rain gardens

Outreach Efforts

Outreach efforts conducted throughout the project period were designed to engage and inspire people of all ages within the community. This helped grow local knowledge of stormwater processes as well as community ownership of watersheds. Outreach efforts included:

- A curriculum to engage Kingswood Elementary students with their stormwater retrofits
- 5 community volunteer rain garden planting events
- 3 community volunteer rain garden care events
- 2 Big Sweep for Black Creek stream clean-up events
- An invasive plant removal event



Painted water cistern outside Kingswood Elementary School



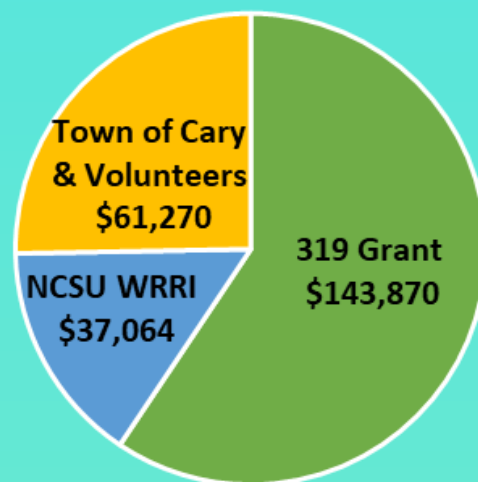
Residents participating in a streambank stabilization workshop

Project Manager Interview: Fostering Community-Driven Stewardship

Christy Perrin of WRRI has worked closely with the Beechtree neighborhood residents for almost a decade, identifying and installing stormwater management projects to improve water quality in Black Creek. At the close of this project, the Beechtree Homeowners Association acquired a new round of 319 funding to spearhead their own watershed initiatives. The project includes the removal of two old stormwater pond dams, stream restoration, and implementation of green stormwater infrastructure along a tributary to Black Creek.



Project Funding



**Match amounts include cash and in-kind services*

Learn more about the 319 Grant on the North Carolina Department of Environmental Quality [website](#).

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